

VARIABLE BANDWIDTH SIGNAL MULTIPLEXER AND DEMULTIPLEXER

ABSTRACT OF THE DISCLOSURE

A variable bandwidth signal multiplexer and demultiplexer. Aspects of the multiplexer may include a uniform bandwidth multiplexer with a composite signal output and a plurality of first bandwidth communication signal inputs. The first bandwidth signal inputs may be individually coupled to filters spanning a preselected bandwidth. A first external signal connection may couple to a first one of the first bandwidth communication signal inputs, while a first power divider may couple to a second external signal connection. The first power divider may include a first split output coupled to a second one of the first bandwidth communication signal inputs. The first power divider may also include a second split output coupled to a third one of the first bandwidth communication signal inputs. Aspects of the present invention also provide a demultiplexer that may generally correspond to various aspects of the multiplexer.